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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,066	05/07/2001	Tongwei Liu	HP-10012392	2859

7590                    06/18/2004

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EXAMINER

LE, MIRANDA

ART UNIT

PAPER NUMBER

2177

DATE MAILED: 06/18/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/851,066	LIU ET AL. <i>[Signature]</i>
	<b>Examiner</b>	<b>Art Unit</b>
	Miranda Le	2177

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 31 March 2004.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-22 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                         |                                                                             |
|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date: _____                                                |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|                                                                                                                         | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/31/2004 has been entered.
2. This communication is responsive to Amendment B, filed on 03/31/2004.
3. Claims 1-22 are pending in this application. Claims 1, 8, 15, 22 are independent claims. In the Amendment B, claims 8 has been amended, no claims have been canceled, added. This action is made non Final.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for

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the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Agrawal et al. (US Patent No. 6,687,705 B2), in view of Rucker et al. (US Patent No. 6,195,657 B1).

**As to claims 1, 8, 15,** Agrawal teaches “receiving a record comprising a plurality of variables, wherein said record comprises information for a first portion of said variables” at col. 3, lines 52-59;

“using said information with a first classification tool adapted to classify said record” at col. 3, line 60 to col. 4, line 3, col. 4, lines 9-27, col. 4, lines 46-58;

Agrawal does not expressly teach “using said information with a second classification tool instead of with said first classification tool to classify said record in response to determining that said first classification tool requires a particular item of information that is missing from said information”. However, Rucker teaches this limitation at col. 4, line 51 to col. 5, line 64.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of with the teachings of Rucker to include “using said information with a second classification tool instead of with said first classification tool to classify said record in response to determining that said first classification tool requires a particular item of information that is missing from said information” in order to provide a method for efficient categorization that can automatically recommend to a user objects and other users of a computer system based on categories and objects identified by each user.

**As per claim 22, Agrawal teaches:**

“ranking said plurality of variables according to their respective influence on said classifying” at col. 4, line 9 to col. 5, line 42;  
“grouping said plurality of variables into subsets of variables using said ranking, wherein a classification tree is computed for each of said subsets” at col. 4, line 9 to col. 5, line 42;

“receiving a record comprising information for a portion of said variables” at col. 3, lines 52-59;

“using said information with a first classification tree adapted to classify said record, wherein said first classification tree is based on a substantially complete set of information for said plurality of variables” at col. 3, line 60 to col. 4, line 3, col. 4, lines 9-27, col. 4, lines 46-58;

Agrawal does not specifically teach “using said information with a second classification tree instead of with said first classification tree to classify said record when said first classification tree requires a particular item of information that is missing from said information, wherein said second classification tree is based on information for one of said subsets of variables, wherein said one of said subsets does not include said particular item of information that is missing”. However, Rucker teaches this limitation at col. 4, line 51 to col. 5, line 64.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Agrawal with the teachings of Rucker to include “using said information with a second classification tree instead of with said first classification tree to classify said record when said first classification tree requires a

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particular item of information that is missing from said information, wherein said second classification tree is based on information for one of said subsets of variables, wherein said one of said subsets does not include said particular item of information that is missing" in order to provide a method for efficient categorization that can automatically recommend to a user objects and other users of a computer system based on categories and objects identified by each user.

**As to claims 2, 9, 16,** Agrawal teaches first classification tool is a first classification tree at col. 30, lines 60-67;

Rucker teaches second classification tool is second classification tree at col. 4, line 51 to col. 5, line 64, col. 7, line 47 to col. 8, line 9.

**As to claims 3, 10, 17,** Agrawal teaches "first classification tree is computed using a substantially complete set of information for said plurality of variables" at col. 4, lines 9-27, col. 4, lines 46-58;

Rucker teaches "wherein said second classification tree is computed using information for a subset of said plurality of variables, wherein said subset does not include said particular item of information that is missing" at col. 4, line 51 to col. 5, line 64.

**As to claims 4, 11, 18,** Agrawal teaches "ranking said plurality of variables according to their respective influence on said classifying" at col. 4, line 9 to col. 5, line 42;

“grouping said plurality of variables into subsets of variables using said ranking” at col. 4, line 9 to col. 5, line 42.

**As to claims 5, 12, 19,** Agrawal teaches “computing a classification tree for each one of said subsets” at col. 4, line 67 to col. 5, line 42.

**As to claims 6, 13, 20,** Rucker teaches “said record comprises customer information for a client, wherein content is selected for delivery to a customer according to said classifying of said record” at col. 4, line 51 to col. 5, line 64.

**As to claims 7, 14, 21,** Rucker teaches “substituting a default value for said particular item of information that is missing” at col. 4, line 51 to col. 5, line 64.

#### *Response to Arguments*

6. Applicant's arguments, regarding Iwamoto, Hadzikadic and Chaudhuri do not show or suggest a situation in which the instance of information to be classified is incomplete, with respect to claims 1, 8, 15, 22, have been considered but are moot in view of the new ground(s) of rejection.

#### *Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Miranda Le whose telephone number is (703) 305-3203.

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The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene, can be reached on (703) 305-9790. The fax number to this Art Unit is (703) 872-9306. The TC 2100's Customer Service number is (703) 306-5631.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

*Miranda Le*

Miranda Le  
June 14, 2004



GRETA ROBINSON  
PRIMARY EXAMINER